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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Sciences and Mathematics |
| **GENERAL INFORMATION** |
| Study program  | Master academic studies |
| Study Module (if applicable) |  **Applied Chemistry** |
| Course title | Chemistry of organic polymers |
| Level of study | Bachelor x☐ Master’s ☐ Doctoral |
| Type of course | x☐ Obligatory ☐ Elective |
| Semester  |  x☐ Autumn ☐Spring |
| Year of study  | 1 |
| Number of ECTS allocated | 7 |
| Name of lecturer/lecturers | 30 |
| Teaching mode |  x☐Lectures ☐Group tutorials ☐ Individual tutorials x☐Laboratory work ☐ Project work x☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Introducing students to the field of macromolecular chemistry by examining the structure, synthesis and physicochemical and mechanical properties of organic polymers. In particular, getting to know the mechanisms and kinetics of some specific polymerization reactions. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Definition, nomenclature, classification, structure and physical state of organic polymers. The mechanism and kinetics of stepwise polymerization reactions (polycondensation and polyaddition). The mechanism and kinetics of free radical polymerization reactions. The mechanism and kinetics of anionic and cationic polymerization reactions. Specific polymerization reactions initiated with Ziegler-Natta catalysts. Coordination polymerization. Copolymerization reactions. Significant industrial organic polymers. Correlation between structure and physicochemical and mechanical properies polymers. |
| **LANGUAGE OF INSTRUCTION** |
| x☐Serbian (complete course) ☐ English (complete course) ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)☐Serbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | 1-5 | **Written examination** | 0-50 |
| **Practical teaching** | 0-10 | **Oral examination** |  |
| **Teaching colloquia** | 0-50  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |